

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all prior versions of the claims and all prior listings of the claims in the present application.

1-7. (cancelled)

8. (new) A projectile launching apparatus for seismic exploration of a remote land or marine site, said apparatus including:

a cluster of barrel assemblies, each barrel assembly of the cluster comprising a barrel having a plurality of projectiles arranged in-line within the barrel in sealing engagement with the barrel and which projectiles are associated with discrete selectively ignitable propellant charges for propelling the projectiles sequentially through the muzzle of the barrel, wherein said sealing engagement prevents rearward travel of an ignited propellant charge to a trailing propellant charge, which barrel assemblies are each capable of firing a plurality of seismic signal instigating projectiles; and

control means for controlling the rate of fire of the projectiles in order to fire seismic signal instigating projectiles from selected ones of said barrel assemblies to the ground or water at a selected rate and/or directions to propagate a desired seismic signal.

9. (new) The projectile launching apparatus as claimed in claim 8, wherein said cluster of barrel assemblies is contained in a pod.

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10. (new) The projectile launching apparatus as claimed in claim 9, wherein said pod is adapted to be mounted on a vehicle platform wherein said barrels are directed downwardly.

11. (new) The projectile launching apparatus as claimed in claim 10, wherein the vehicle is an aircraft, and the control means further includes an electronic link for coordinating firing of seismic signal instigating projectiles from respective pods mounted on a number of aircraft.

12. (new) The projectile launching apparatus as claimed in claim 8, further including a detection and recording means for remotely detecting and recording seismic waves resulting from said seismic signals.

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